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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,985

06/07/2006

Yoshikuni Okumura

LU 6145 (US)

7230

34872

7590

03/04/2008

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EXAMINER

LEE, RIP A

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

03/04/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,985	<b>Applicant(s)</b> OKUMURA ET AL.	
	<b>Examiner</b> RIP A. LEE	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09-21-2006</u> . | 6) <input type="checkbox"/> Other: ____.  |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Rieger (U.S. 6,576,726).

Rieger teaches metallocene compounds of general formula (I) which contain a bridged ligand set containing minimally a cyclopentadienyl-based ligand and an indenyl-based ligand. In the cyclopentadienyl-based ligand, substituent  $R^1$  is a linear or branched  $C_1$  to  $C_{10}$  alkyl group, and  $R^3/R^4$ , may be integrated into  $C_5$  to  $C_7$  aryl fused rings (*i.e.*, indenyl). In the indenyl-based ligand,  $R^{11}$  is  $C_1$  to  $C_8$  alkyl, and  $R^6/R^7$  may be integrated into  $C_5$  to  $C_7$  cycloalkyl fused rings. In figure (VII), one clearly observes that the metallocene contains an indacenyl group. Metallocenes are used with co-activator to form catalysts for polymerization of olefins; see discussion in column 3.

3. Claims 1, 3, 5-9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen *et al.* (U.S. 6,084,115).

Chen *et al.* teaches polymerization of olefin in the presence of catalysts containing group 4 diene complexes. The compound  $Me_2Si(3-Ph-indacenyl)Ti(1,4-diphenyl-1,3-butadiene)$  is representative (col. 9, line 44).

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4. Claims 1, 3, 5-9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashimoto *et al.* (U.S. 6,156,844).

Hashimoto *et al.* teaches polymerization of olefin in the presence of catalysts containing group 4 polycyclic metallocene complexes. The compounds  $\text{Me}_2\text{Si}(\text{1-toluo[4,3-}f\text{]-2-Me-4-phenylindenyl})_2\text{ZrCl}_2$  and  $\text{Me}_2\text{Si}(\text{2-Me-5-neopentyl-benzo[}f\text{]indenyl})_2\text{ZrCl}_2$  are representative (column 22).

5. Claims 1, 3, 5-9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Okada *et al.* (U.S. 6,194,501).

Okada *et al.* teaches polymerization of olefin in the presence of catalysts containing group 4 polycyclic metallocene complexes. The *bis*(benzo[*f*]indenyl) compounds tabulated in column 13, where  $\text{R}^3 = \text{CH}_3$  or linked with R12 as  $-\text{CH}_2\text{CH}_2-$  are representative.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu S. Jagannathan, can be reached at (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Rip A. Lee/  
Examiner, Art Unit 1796

February 20, 2008